

## INTERNATIONAL SEARCH REPORT

PCT/GB2004/003548

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 H01Q13/28 H01Q1/42

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 H01Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, INSPEC, COMPENDEX

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 864 690 A (PIERROT ROBERT) 4 February 1975 (1975-02-04) column 2, line 15 - column 4, line 46 figures 1-6 abstract ----- PATENT ABSTRACTS OF JAPAN vol. 017, no. 061 (E-1316), 5 February 1993 (1993-02-05) & JP 04 269001 A (KOKUSAI DENSHIN DENWA CO LTD), 25 September 1992 (1992-09-25) abstract ----- US 5 486 837 A (MILLER LEE S) 23 January 1996 (1996-01-23) the whole document -----	1-9 10-12, 15, 16 1-6, 9, 20-22 -/-
X		

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

10 January 2005

Date of mailing of the international search report

19.01.2005

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

PCT/GB2004/003548

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 176 668 A (ANRITSU CORP) 30 January 2002 (2002-01-30) column 8, line 9 - column 13, line 39 figures 1-10B abstract -----	1-6, 9, 20, 21
X	EP 1 130 680 A (ANRITSU CORP) 5 September 2001 (2001-09-05) column 7, line 21 - column 14, line 36 figures 1-12 abstract -----	1-6, 9, 20, 22
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 04, 2 April 2003 (2003-04-02) & JP 2002 374123 A (ANRITSU CORP), 26 December 2002 (2002-12-26) abstract -----	1-6, 9, 20-24
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 02, 5 February 2003 (2003-02-05) & JP 2002 299951 A (ANRITSU CORP), 11 October 2002 (2002-10-11) abstract -----	1-5, 8, 9
X	GHOMI M ET AL: "ANTENNE PLAQUEE A ONDE DE FUISTE A BALAYAGE DU FAISCEAU" JOURNEES NATIONALES MICROONDES (JNM). NICE, JUNE 22 - 24, 1987, NICE, UNIVERSITE DE NICE, FR, vol. 5, 22 June 1987 (1987-06-22), pages 271-273, XP000145002 the whole document -----	1-6, 9
X	FR 1 399 638 A (CSF) 21 May 1965 (1965-05-21) the whole document -----	1-5, 9
A	US 4 150 382 A (KING RAY J) 17 April 1979 (1979-04-17) column 7, line 3 - column 13, line 56 figures 1-4 abstract -----	1-9, 20-24
X	DE 32 10 895 A (LICENTIA GMBH) 29 September 1983 (1983-09-29) page 5, line 18 - page 7, line 23 figures 1,2 abstract -----	25

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

PCT/GB2004/003548

Patent document cited in search report	Publication date	Patent family member(s)			Publication date
US 3864690	A 04-02-1975	FR 2205754 A1	DE 2354754 A1	GB 1396675 A	31-05-1974 09-05-1974 04-06-1975
JP 04269001	A 25-09-1992	NONE			
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JP 2002374123	A 26-12-2002	NONE			
JP 2002299951	A 11-10-2002	NONE			
FR 1399638	A 21-05-1965	NONE			
US 4150382	A 17-04-1979	NONE			
DE 3210895	A 29-09-1983	DE 3210895 A1	DE 3217437 A1	US 4536767 A	29-09-1983 10-11-1983 20-08-1985

## INTERNATIONAL SEARCH REPORT

Application No.  
PCT/GB2004/003548

### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:  
  
1-12, 15(partly), 16(partly), 20-25
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9

A structure having an array of conductors on a dielectric surface forming an reactive element  
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2. claims: 10-12,15(partly),16(partly)

An antenna having an actuating mechanism for displacement between an equipotential surface and a reactive element  
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3. claims: 13,14,15(partly),16(partly),17-19

An antenna having a controllable active dielectric material between an equipotential surface and a reactive element  
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4. claims: 20-24

An antenna having an array of conductors on a dielectric surface presenting a capacitive surface impedance  
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5. claim: 25

A choke having annular arrays of conductors on a dielectric surface forming a reactive element  
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